Form 2995-0127

17-0100f0

GENERAL RADIO COMPANY
WEST CONCORD • MASSACHUSETTS, 01781

TEL. 617 369-4400 (Concord)
617 646-7400 (Boston)
TWX 710 347-1051

Order # 776526-00
BOM S-45214

Supplementary Instructions

2995-9127 Range Control

The 2995-9127 Range Control is an accessory instrument for use with a 1680-A Automatic Capacitance Bridge Assembly (modified for remote range control). The instrument is used to select and hold a desired measurement range.

The Range Control includes a 35-volt power supply and a switch to apply the supply voltage to the range-control lines of the bridge in the proper binary sequence. The BCD logic used is 1-2-4-2 (identical to 1-2-4-8 up to range 7) with:

true = 0 volts

false = -35 volts

A cable is provided to connect to the AUX connector at the rear of the bridge. An EXT connector at the rear of the Range Control provides access to other terminals of the bridge connector.

Operation

Set the BALANCE control of the bridge to HOLD RANGE and set the BRIDGE RANGE control of the Range Control to the desired range. To restore the bridge to normal operation set the BRIDGE RANGE control to INT.

Diagrams

Drawing 2995-9127-2D shows a schematic diagram of the instrument.

OFFICIAL RECORDS STATION
FILE COPY
FACILITIES
DEC 1 1967

Socket Connections

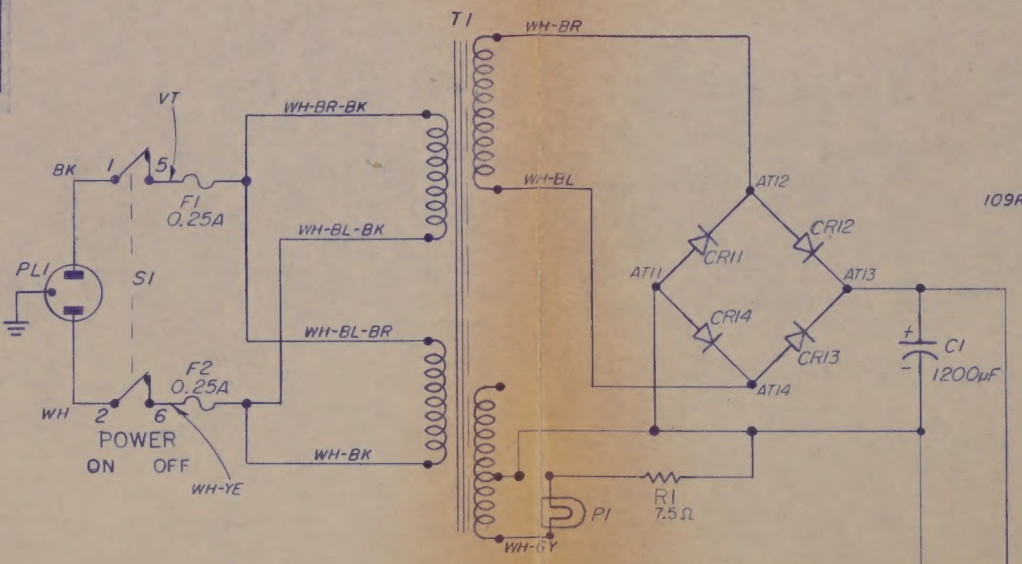
BRIDGE AUX	EXT	BRIDGE AUX CONNECTION	FUNCTION
1		H3	Range Set 1
2		F3	Range Set 2
3		F1	Range Set 4
4		H1	Range Set 2
5	5	A6	CO
6	6	B3	FR
7	7	B5	FH
8	8	A2	STW
9	9	F13	PRT'
10	10	G4	+12 V
11	11	G6	+6 V
12	12	G8	-9 V
13	13	G10	-15 V
14	14	G2	GND

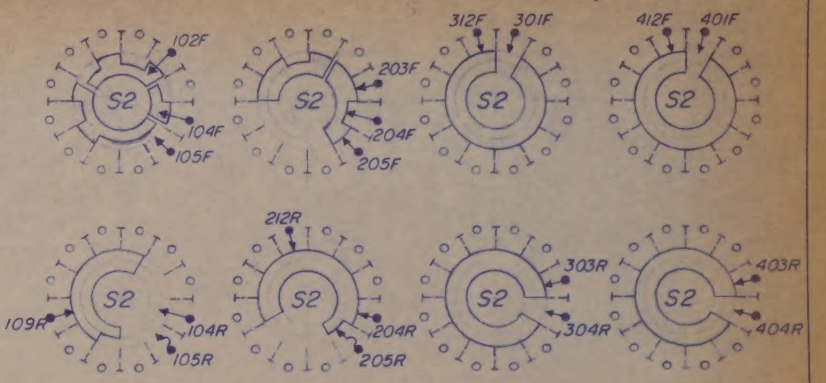
Output Signals

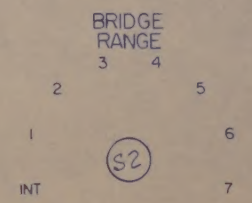
BRIDGE RANGE	BRIDGE AUX 1	2	3	4
INT	OPEN	OPEN	OPEN	OPEN
1	0	+	+	+
2	+	0	+	+
3	0	0	+	+
4	+	+	0	+
5	0	+	0	+
6	+	0	0	+
7	0	0	0	+

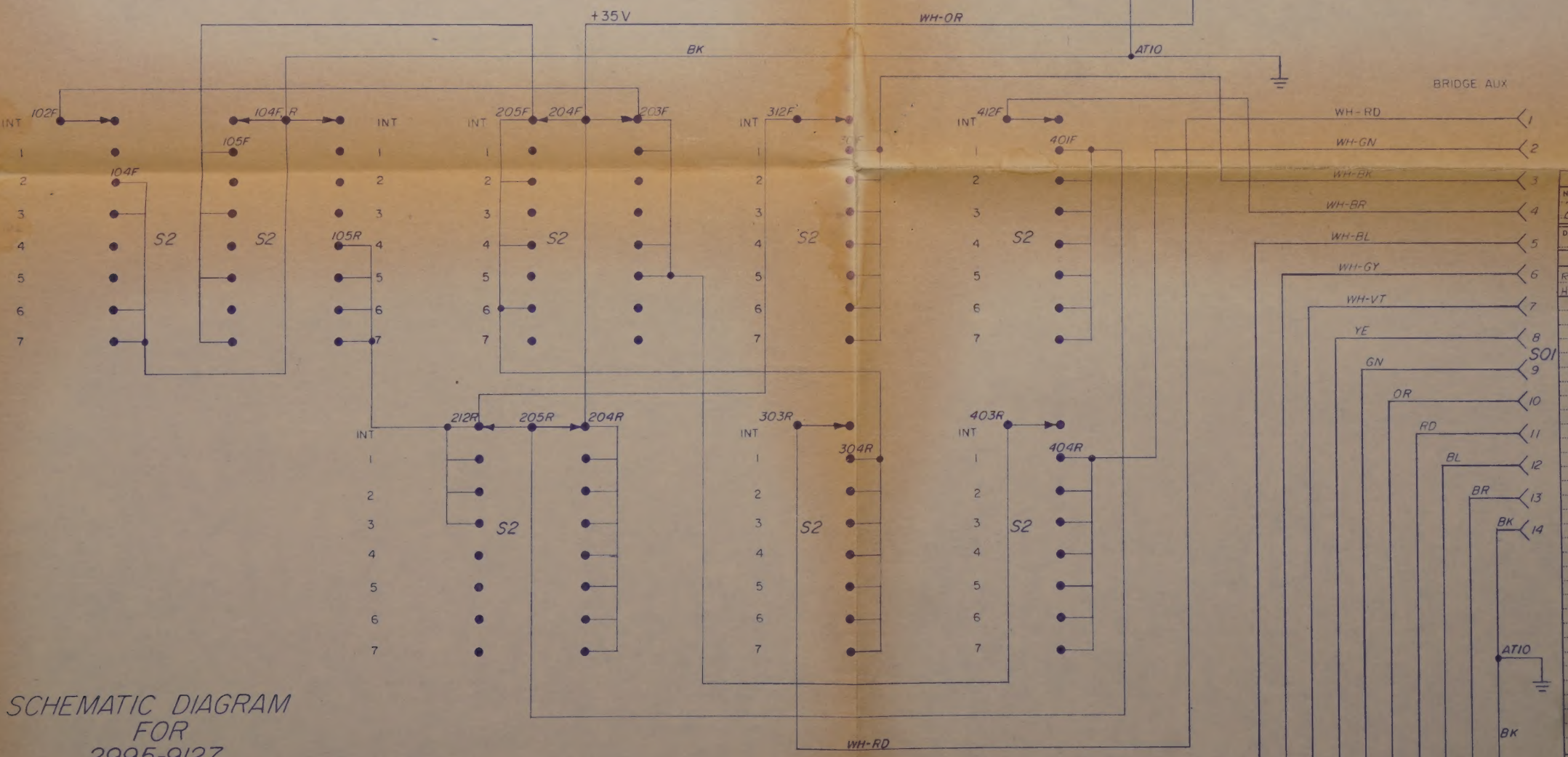
NOTE UNLESS SPECIFIED

1. POSITION OF ROTARY SWITCHES SHOWN COUNTERCLOCKWISE.
2. CONTACT NUMBERING OF SWITCHES EXPLAINED ON SEPARATE SHEET SUPPLIED IN INSTRUCTION BOOK.
3. REFER TO SERVICE NOTES IN INSTRUCTION BOOK FOR VOLTAGES APPEARING ON DIAGRAM.
4. RESISTORS 1/2 WATT.
5. RESISTANCE IN OHMS K - 1000 OHMS M - 1 MEGOHM
6. CAPACITANCE VALUES ONE AND OVER IN PICOFARADS, LESS THAN ONE IN MICROFARADS.
7. ◯ KNOB CONTROL
8. ⊘ SCREWDRIVER CONTROL
9. AT - ANCHOR TERMINAL
10. TP - TEST POINT









SCHEMATIC DIAGRAM
FOR
2995-9127
RANGE CONTROL

NUMBER	ISSUE
2995-9127-2D	/2
DATE: 12-21-66	ISSUE 1
REVISIONS	
REVISED PER MKD RECORD HTM 1-25-67 EMG	2
SCALE —	FIRST USED ON
DR. ARG CH. CCM APP.	

GENERAL RADIO COMPANY
W. CONCORD, MASS. U.S.A.

NUMBER	ISSUE
2995-9127-2D	/2